

**DEPOSITING NANOWIRES ON A SUBSTRATE****ABSTRACT OF THE DISCLOSURE**

Processes for depositing nanowires on a substrate and nanowire-based devices that can be formed using these processes are described. In one embodiment, a process includes forming an organic layer on an electrically conductive layer formed on the substrate. The organic layer includes a first region and a second region. The first region has an affinity for the nanowires and is electrically conductive. The process also includes contacting the organic layer with a composition including the nanowires dispersed in a compatible solvent for a time sufficient to selectively deposit at least one of the nanowires on the first region of the organic layer.